

Fuel Abstracts
Vol. 15 No. 3
Mar. 1954
Netural Liquid Fuels and Lubricants: Sources, Properties, and Treatments

Yes and Treatments

101 No. 2 No. 3 No. 3 No. 3 No. 2 No. 20 No.

KULINEV, A. M.

"Dependence of Residual Water Saturation on the Principal Physical Properties of a Collector and on the Physicochemical Properties of Petroleum and Water." Cand Tech Sci, Inst of Petroleum, Acad Sci Azerbaydzhan SSR, Baku, 1954. (KL, No 3, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12) SO: Sum. No. 556, 24 Jun 55

KULIYRY Ali Musa, professor, doktor khimicheskikh nauk; GUTYRYA, V.S., professor, redaktor; GONCHAROV, I.A., tekhnicheskiy redaktor

是我们的国际的证明,但是我们的国际的国际的国际的企业的企业,但是我们的国际的企业的,但是是是这种国际的国际的。这个国际的国际的人,但可以是对于国际的人,这个国

[Ways of improving the qualities of petrolem lubricants] Puti uluchsheniia kachestv neftianykh smazochnykh masel. Baku, Aznefteizdat, 1954. 92 p. [Microfilm] (MIRA 9:12) (Imbrication and lubricants)

MOLIVEY 14-11

124-57-1-779

Translation from Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 103 (USSR)

AUTHORS: Kuliyev, A.M., Babalyan, G.A.

TITLE: On the Study of Oil-flood Water Displacement (K izucheniyu

protsessa vytesneniya vody neftiyu)

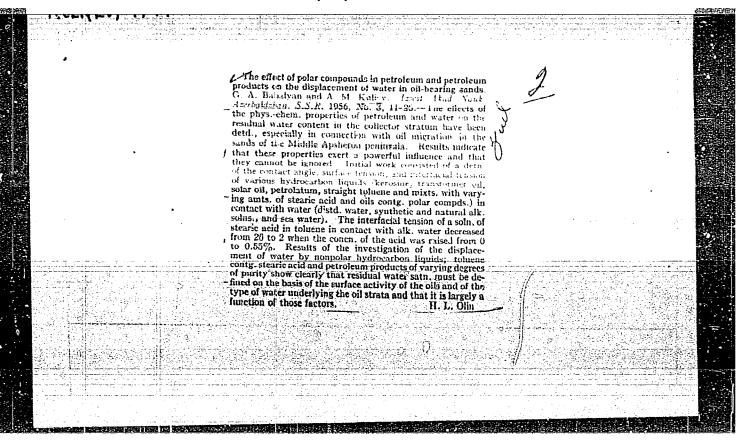
PERIODICAL: Tr. Neft. ekspeditsii AN AzSSR, 1955, Vol 2, pp 91-96

ABSTRACT: The results of experimental investigation on the displacement

of water with kerosene are adduced for sand-reservoir models of different length, permeability, and inclination with respect to the horizon. The pressure gradients were of such magnitude that any additional increase therein did not reduce the residual water saturation any further. The authors reached the conclusion that in such conditions the gravitational effect does not influence the residual water saturation. Relationships are obtained between the residual water saturation, the length of the model, and its permeability. The authors propose to introduce correction factors into the experimental data obtained on short models, in order that these relationships may be used in the extrapolation to full-scale conditions.

Card 1/1 1. Dams---Model test results 2. he owner-Application V.L. Danilov

cations



KULIYEV, A.M.: ORUDZHEVA, I.M.; ZAYNALOVA, G.A.; LEVSHINA, A.M.

Multipurpose AzNII-8 additive for truck and tractor oils. Azerb.
neft.khoz. 35 no.7:32-33 Jl '56. (MLRA 9:12)

(Lubrication and lubricants)

KULIYAY, A.M.; ZEYNALOVA, G.A.; ORUDZHEVA, I.M.; LEVSHINA, A.M.

Improving output factors of diesel engines operating on sulfurous fuels. Azerb.neft.khoz.35 no.12;44-46 D '56. (MLRA 10:3)

(Diesel engine) (Diesel fuels)

KULIYEV, A.M.: BABALYAN, G.A., redaktor; MIKELADZE, G.A., redaktor izdatelistys AGAYEVA, Sh., tekhnicheskiy redaktor

[Connate water saturation of oil field collectors] K voprosu ostatochnoi vodonasushchennosti kollektorov neftianykh mestorozhdenii. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1957. 52 p.

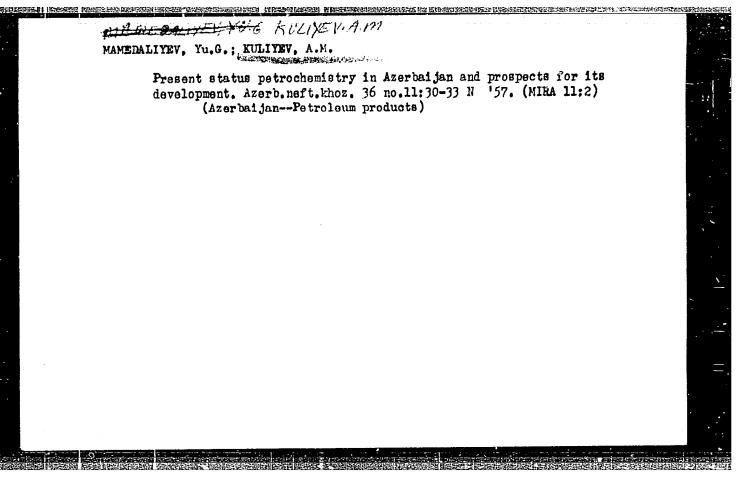
(Water, Underground) (MLRA 10:8)

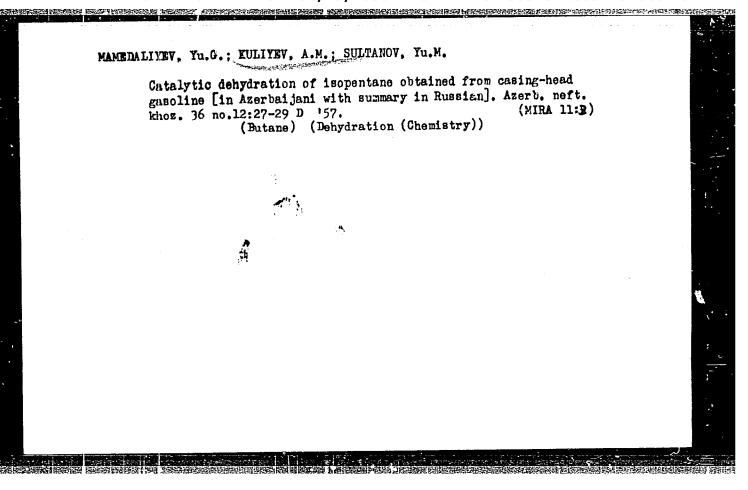
KULIYEV, A.M.; KULIYEV, R.Sh.; DREYZIN, M.M.; ANTOHOVA, K.I.

Improvement of industrial naphthenic acids. Azerb.neft.khoz.36 no.2:31-34 F 157.

(MIRA 10:4)

(Naphthenic acid)





KULIYEV A. MI.

Composition and Properties of the High Molecular (Cont.) 647
Weight Fraction of Petroleum; Collection of Papers, Moscow, Izd-vo AN SSSR, 1958, 370pp
PART III. EFFECT OF COMPOSITION ON THE PERFORMANCE OF LUBRICATING OILS

Kuliyev, A.M., Kuliyev, R.Sh., Aliyev, M.I. Effect of the Hydrocarbon Composition on the Physicochemical Properties and Performance of Lubricating Cils 119

A study was made of the narrow oil fractions and commercial oils obtained from various Baku crudes. It was shown that the physicochemical properties and the performance properties of oils are modified by the hydrocarbons composition and structure. The naphthene-paraffin hydrocarbons obtained from various crudes are similar in quality and have very good temperature-viscosity properties but show low oxidation stability. Aromatic hydrocarbons differ in their properties and have a greater effect on the quality of lubricating oils than naphthene-paraffin hydrocarbons. Aromatics and tars inhibit the action of depressants and additives. The article contains 16 tables there are no references.

Kreyn, S.E., Borovaya, M.S. Effect of the Chemical Composition of Petroleum Lubricating Oils on Their Properties

This paper is a study of petroleum oils obtained from various Baku crudes. Components were separated by adsorption. The distillates

Cand 9/22

A 2nd Collection of papers publ. by AU Conf. Jan 56, Moscow.

KULIYEV, Ali Musa ogly, prof.; KULIYEV, Rasul Shirin ogly; ALIYEV, Mamed Ibragim ogly; GUTYRYA, V.S., prof.; doktor khim.nauk, red.; SHTEYNGEL', A.S., red.izd-va

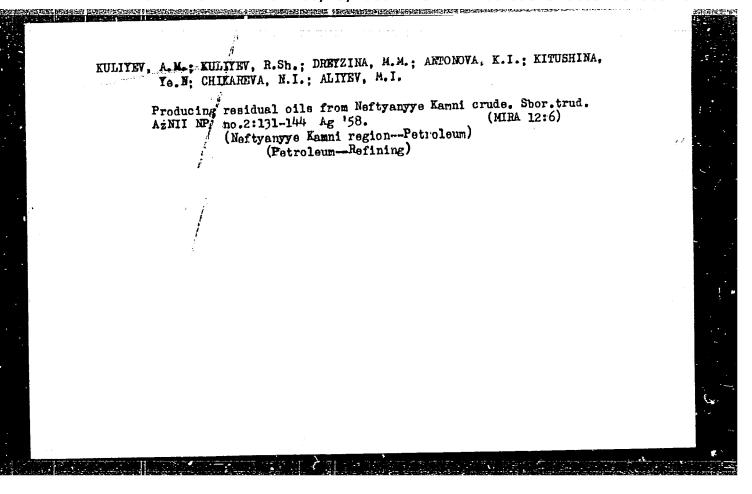
[Production technology and investigation of lubricating oils from Baku petroleum] Tekhnologiia polucheniia i issledovanie masel is Bakinskikh neftei. Baku, Azerbaidzhanskoe gos.izd-vo neft. i nauchno-tekhn.lit-ry. 1958. 644 p. (MIRA 12:9) (Baku--Petroleum) (Inbrication and lubricants)

KULIYEV, A.M.; KULIYEV, R.Sh.; DREYZINA, M.M.; ANTONOVA, K.I.;

Investigating Neftyanyye Kamni crude with regard to its suitability for producing distillate lubricating oils. Sbor.trud.A2NII NP (MIRA 12:6) no.2:106-130 Ag '58.

(Neftyanyye Kamni region--Petroleum--Analysis)

(Lubrication and lubricants)



KULIYEV, A.M.; KULIYEV, R.Sh.; DREYZINA, M.M.; MARGOLINA, R.L.;

Use of the deasphaltizing process in the production of AK-22 aviation oil. Shor.trud.AzNII MP no.2:144-155 Ag '58.
(MIRA 12:6)

(Petroleum products)
(Lubrication and Lubricants)

KULIYEV, A.M.; ORUDZHEVA, I.M.; MIRDZHAVADOVA, M.M.; LOGINOVA, S.E. MISAYEV, M.R.

Producing lubricating oils from paraffin-base crudes by dewaxing with carbamide. Sbor.trud.AmNII NP no.2:156-172: Ag 158. (MIRA 12:6)

(Lubrication and lubricants) (Paraffins) (Urea)

sov/81-59-8-28972

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 8, p 505 (USSR)

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Kuliyev, A.M., Aliyev, M.I., Kuliyev, R.Sh. AUTHORS:

The Response of Oils of Various Hydrocarbon Composition to Additives TITLE:

Sb. tr. Azerb. n.-i. in-t neftepererabat. prom-sti, 1958, Nr 2, PERIODICAL: pp 192 - 206 (Azerbaydzhanian; Russian summary)

The response of distillates and finished AS-9.5 oils, as well as in-

dividual groups of hydrocarbons separated from them to the following antioxidant additives has been investigated: A -naphthol (I), paraoxydiphenylamine (II) and to the depressant (D) of AzNII which lowers the pour point. It has been established that finished AS-9.5 oils show a better response to I, II and D than the corresponding distillates of autol-10 from Balakhany and Binagada petroleum and petroleum of the layer "Neftyanyye Kamni". Methane-naphthene hydrocarbons separated from the oils investigated have shown a good respectivity to I, II and D and the aromatic hydrocarbons and asphalt-resinous substances were unreceptive

to them.

Card 1/1

ABSTRACT:

N. Kel'tsev

KULITEV, A.M.; ORUDZHEVA, I.M.; ZEYNALOVA, G.A.; AKHARD-KADE, D.A.;
ATALTAN, A.A.; LEVSHIMA, A.M.; SADYKHOV, K.I.

Studies in the synthesis and use of additives for lubricating oils. Sbor.trud.AzNII NP no.2:207-224 ag '58.

(AIRA 12:6)

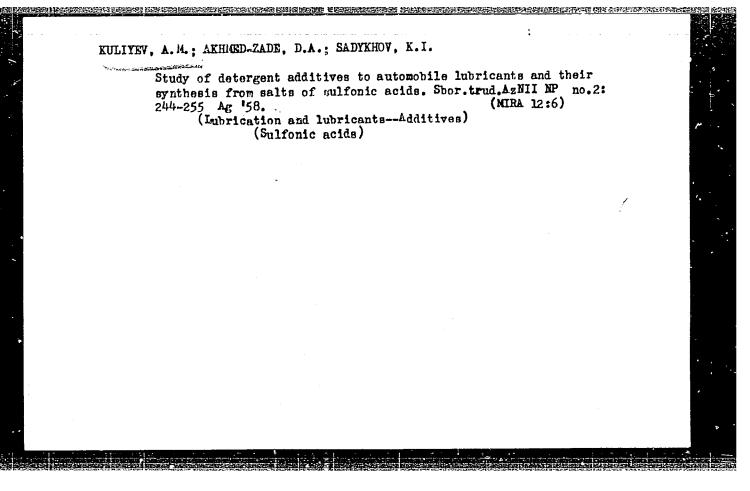
(Lubrication and lubricants—Additives)

KULIYEV, A.M.; LEVSHINA, A.M.; ALIYEV, M.I.

Investigating the synthesis of depressants and studying their effect on different oils and on hydrocarbon groups derived from them. Sbor.trud.AzNII NP no.2:225-243 Ag '58.

(MIRA 12:6)

(Lubrication and lubricants-Additives)
(Hydrocarbons)



67632

15.6200

SOV/81-59-14-51087

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 14, p 457 (USSR)

AUTHORS:

Kuliyev, A.M., Kuliyev, R.Sh., Dreyzina, M.M., Mekhtiyev, M.Z., Guseynov,

F.I., Chikareva, N.I., Sanamova, R.A., Kevorkova, I.S.

TITLE:

The Effect of the Conditions of Acidic Purification on the Filterability

of Contacted Oil in the Preparation of Aircraft Oil MK-22

PERIODICAL:

Sb. tr. Azerb. n.-1. in-t po pererabotke nefti, 1958. Nr 3. pp 181 - 193

(Azerbaydzhan summary)

ABSTRACT:

The effect of the temperature of acidic purification and settling, the duration of storing of the acidic oil, the concentration of H_2SO_{\parallel} and the method of its preparation, the consumption of acid and the addition of coagulator on the filterability of contacted oil has been studied. The contacting of a concentrate of Surakhany choice petroleum with $VU_{100} = 4.27^{\circ}C$, the coking capacity 2.58, was carried out in a laboratory contacting device with a charge of 750 g and and 20% (based on the acides

contacting device with a charge of 750 g oil and 24% (based on the acidic oil) gumbrine at a final contacting temperature of 350°C. The filtering

was carried out on a Büchner's funnel at 170 - 180°C in a vacuum of

Card 1/2

50 - 60 mm Hg; the time for the filtration of 500 ml filter discharge was

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SOV/81-59-14-51087

The Effect of the Conditions of Acidic Purification on the Filterability of Contacted Oil in the Preparation of Aircraft Oil MK-22

taken as filterability index. It has been shown that the filterability of the contacted oil can deteriorate in the case of an oleum content in the used acid, a rise of the temperature above 70°C , and long storing of the acidic oil (2 days); the coagulator was a commercial contact agent and 43% H_2SO_4 ; although it permitted one to improve the filterability by 2-3 times, in the periods of bad filterability of the oil it does not restore the normal conditions of filtration. There are five references.

G. Margolina

4

Card 2/2

CIA-RDP86-00513R000927510002-5 "APPROVED FOR RELEASE: 06/19/2000

(MIRA 12:1)

MAMEDADIYEV, Yu.G.; KULIYEV, A.M.; AKHUNDOV, M.A.; MUSTAFAYEV, L.S.; ALI-ZADE, Effect of surface active substances from petroleum on the growth and developments of baby chicks. Uch.zap.AGU no.5:39-46 58.

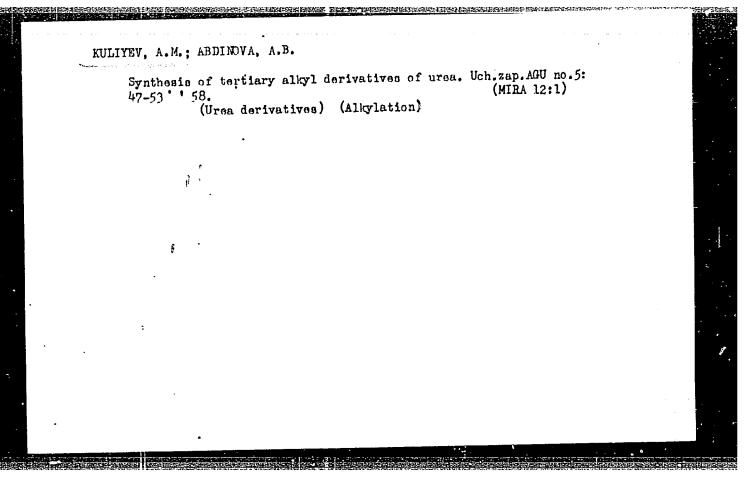
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(Poultry--Feeding and feeding stuffs) (Surface active agents)

MAMEDALIYEV. Yu.G.; KULIYEV. A.M.; AKHUNDOV, M.A.; MUSTAFAYEV, L.S.;
ALIZADE, A.G.

Effect of oil-base surface active substances on the growth and development of chickens. Izv. vys. ucheb. zav.; neft' i gaz (MIRA 11:9) no.6:91-95 *58.

1. Azerbaydzhanskiy gosudarstvennyy universitet im. S.M. Kirova. (Poultry) (Surface active agents)



14/5

SOV/92-58-9-13/36

AUTHORS:

Kuliyev, A.M., Kuliyev, R.Sh., Dreyzina, M.M., and

Aliyev, M.I., Members of the AzNII NI

TITLE:

The Present Technology of Lube Oil Production Must be

Revised (Prinyatuyu tekhnologiyu proizvodstva masel

neobkhodimo izmenit')

PERIODICAL: Neftyanik, 1958, Nr 9, pp 16 - 18 (USSR)

ABSTRACT: The authors state that selective solvents, among which phenol and furfural are the most frequently employed, are used at present in the production of lubricating cil. Thirty-three percent of various lube oils are produced in USA by using phenol and approximately the same percentage by using furfural. The drawback of phenol as a solvent is that its high crystallization temperature does not allow one to carry out the process at a low temperature. To lower the crystallization temperature of phanol, water has to be added. As a result, a considerable amount of heat must be consumed to vaporize the

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quantity of water added. Safety precautions also make the use of phenol undesirable. On the other hand, furfural is an unstable solvent which, during storage, is subject to oxidation and resinification. Nevertheless, operations carried out at the Baku refinery, and the study of the problem by AzNII NP have proved that the refining with furfural is simple and has a number of advantages which the author illustrates in Table 1. This table shows that almost the same properties of refinate are obtained by using the equal quantity of phenol or furfural, but that the yield of lubricating oil is higher when furfural is used. However, not in all cases is the use of furfural desirable. For instance, the production of diesel oil from crudes of the Neftyanyye Kamni field revealed that the use of phenol produces better results. It follows, therefore, that the choice of a selective solvent should be based on results of testing, which depend on properties of crude oil used and of the product which has to be obtained. Studies of the AzNII NP have proved, however, that the furfural refining of lube oil fractions from crudes of Zhirnovo, Izbaskent, Nebitdag and Baku produces better results than refining with phenol. The second important problem in lube

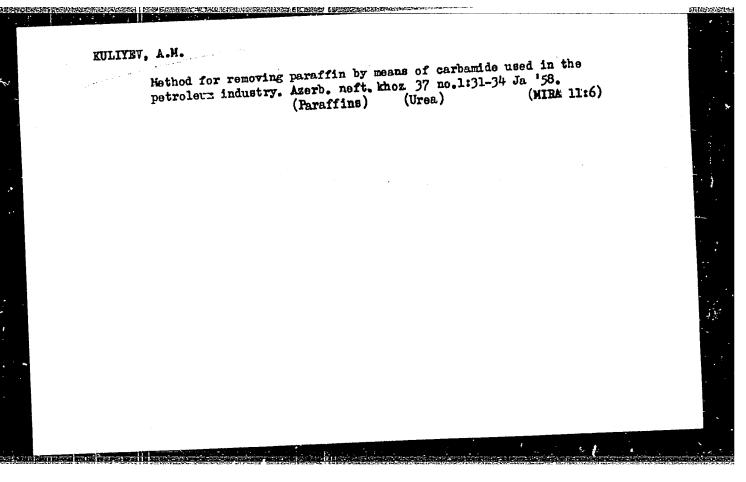
Card 2/3

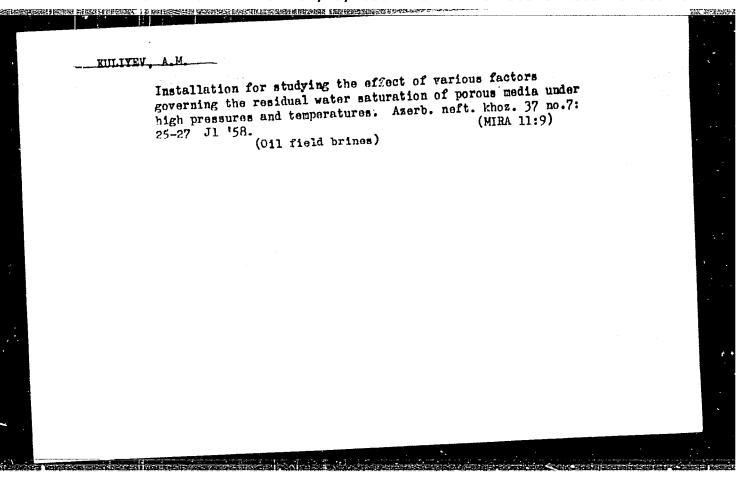
sov/92-58-9~13/59

oil production is the treatment of refinates. Refineries now under construction are designed to carry out the contact treatment of refinates by using the bleaching clay. However, the use of bleaching clay as contact media does not ensure the yield of a finished product with sufficient stability and desirable color. Studies of AzNII NP have proved that tarry matters can be easily removed from refinates by a small quantity of sulfuric acid before contact treatment is started. Figures of Table 2 confirm this statement of the author recommending the use of sulfuric acid before the bleaching clay contact treatment. There are 2 tables.

ASSOCIATION: AZNII NP (Azerbaydzhan State Scientific Research Institute NP)

Card 3/3





KULIYEV, A. M., SANIN, P. I., SHER, V. V.

"Synthetic Additives for Lubricating Oils, Influence of Additive Structure of Their Activity."

Report submitted at the Fifth World Petroleum Congress, 30 May - 5 June 1959. New York.

15.6600

26198 \$/381/61/000/012/026/028 B103/B202

AUTHORS:

Kuliyev, A. M., Orudzheva, I. M., Zeynalova, G. A., Atal'yan, A. A., Akhmed-Zade, D. A., Levshina, A. M., Sadykhov, K. I.,

Abdinova, A. B.

TITLE:

Synthesis of organic compounds containing various functional groups and their applications to improve the quality of

lubricating oils

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 12, 1961, 530, abstract 12M225. (Tr. 1-y Konferentsii zakavkazak. un-tov. Baku,

Azerb. un-t, 1959, 111-123)

TEXT: The authors present the results of research work which has been conducted for many years in the Azerbaydzhanskaya SSR concerning the synthesis and the choice of additives to lubricating oils. The following compounds were synthesized and their properties were studied: mono-, di-, and trialkyl derivatives of benzene, naphthalene, tetraline, anthracene, and phenanthrene; alkyl benzene-, alkyl naphthalene-, alkyl phenol-, and alkyl tetraline sulfonates of Ca, Ba, Sr, Pb, and Cu; mono- and dialkyl phenols; mono- and

Card 1/2

26198 s/081/61/000/012/026/028 B103/B202

Synthesis of organic compounds ...

disulfides of alkyl phenols and their Ba and Ca salts; tri-(alkylphenol)-phosphites and their mono- and disulfide derivatives; mono- and dialkyl ureas; condensation products of urea with aldehydes and alkyl phenols. The depressor A3HMM (Aznii) (dialkyl naphthalene, in which alkyls originate from chlorinated paraffin) from the year 1947, detergents for motor oils chlorinated paraffin) from the year 1947, detergents for motor oils Aznii-4 from the year 1949 and Aznii-5 (both sulfanates) were industrially used. The multifunctional additives to the motor oils Aznii-7 and Aznii-8 (both salts of the alkyl phenol sulfides) and an additive stabilizing the mineral oil obtained by condensation of urea with aldehyde and alkyl phenol, were recommended for introduction into industry. [Abstracter's note: Complete translation.]

Card 2/2

ARASOV, M.T.; DZHALILOV, K.N.; KULIYEV, A.M.

One distance problem of the seepage of an elastic liquid in an elastic layer [in Azerbaijani with summary in Russian]. Izv. AN Azerb. SSR. Ser. fiz.-tekh. i khim. nauk no.1:73-78 '59.

(Petroleum geology)

(Petroleum geology)

EULIYEV, A.M.; ZETNALOVA, G.A.; ABDINOVA, A.B.

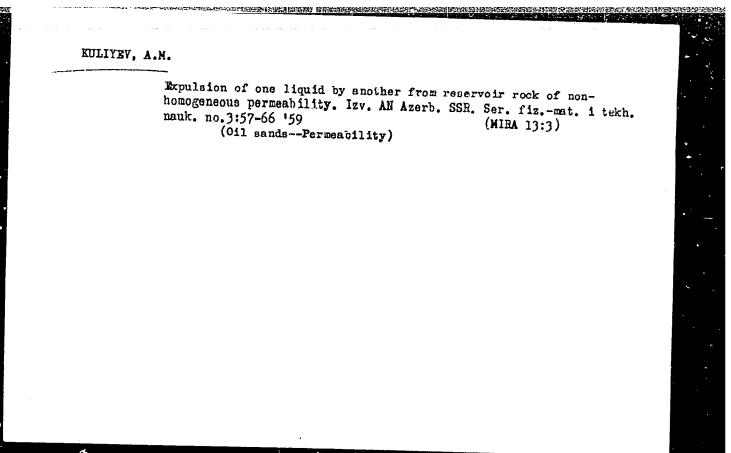
Synthesis of the products of condensation of carbamids and alkyl phenols with formaldehyde and study of their stabilizing action on lubricating oils. Azerb.khim.zhur. no.2:29-38

(MIRA 13:6)

159.

(Urea) (Phenol condensation products) (Formaldehyde)

(Lubrication and lubricants)



KULIYEV, A.M.; ARDINOVA, A.B.; ZEYHALOVA, G.A.; ORUBZHEVA, I.M.

Effect of uroa derivatives on the oxidation resistance of lubricating oils. Azerb, khim.shur. no.4:15-20 '59. (MIRA 14:9) (Inbrication and lubricants) (Uroa)

KULIYEV, A.M.; KULIYEV, R.Sh.; DREYZINA, M.M.; KERVORKOVA, I.S.; ALIYEV, M.I.;
SULEYMANOVA, F.G.; EL'OVICH, I.I.; RESTERENCO, M.Ye.

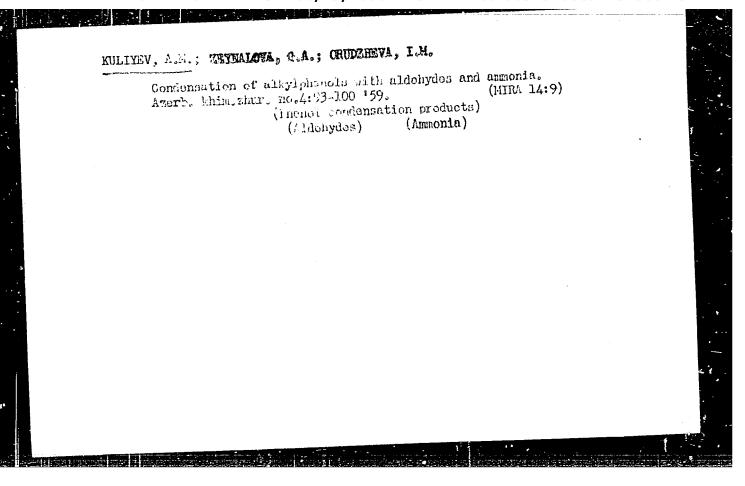
Methods for improving the quality of oil for carburetor engines.

(MERA 15:5)

(Carburetors)

(Carburetors)

(Lubrication and luoricants)



KULIYEV, A.M.; ZEYNALOVA, G.A.; SADYKHOV, K.I.

Synthesis of additives increasing the stability of lubricants.

Shor.trud.As NII NP no.4:173-182 159. (MIRA 15:5)

(Imbrication and lubricants—Additives)

KULIYEV, A.M.; AKHMED-ZADE, D.A.

Preparation of combination additives from sulfonated petrolatum.

Preparation of combination additives from sulfonated petrolatum.

(MIRA 15:5)

Sbor.trud.Az NII NP no.4:183-190 '159.

(Petrolatum) (Lubrication and lubricants---Additives)

S/081/61/000/003/013/019 A166/A129

11.0100

Kuliyev, A. M., Marlanov, M. A., Alekperov, G. Z.

TITLE3

AUTHORS:

A new apparatus for determining the thermal stability of motor fuels

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1961, 480, abstract 3M282. (Azerb. kimja zh., Azerb. khim. zh., 1959, no. 6, 27 - 32)

TEXT: The authors recommend a laboratory apparatus which operates under dynamic conditions to determine the thermal stability of fuel during heating of the test sample at 175°C for 30 minutes. The apparatus (a schematic diagram is given) consists of an electrically heated cylindrical body containing a disk rotating at 25 rpm and seated on a shaft connected to an electric motor. Four NCA (ISA) flasks filled with test samples are fitted to the disk; by the end of the test the oxygen in the flasks is practically completely consumed.

Summary by S. Rozenfel'd

[Abstracter's note: Complete translation]

Card 1/1

ARASOV, M.T.; DZHALILOV, K.N.; KULIYEV, A.M.

Distribution of pressure in a heterogeneous gas layer. Azerb, neft. (MIRA 13:2)

(Gas, Natural)

KULIYEV, A.M.; MARDANOV, M.A.; ALEXPEROV, G.Z.

Thermal stability of motor fuels. Azerb. neft. khoz. 38 no.9;34-37
(MIRA 13:2)

S '59. (Motor fuels)

ABASOV, Mitat Teymur ogly; DZHALILOV, Kurban Nizameddin ogly; AZIZOVA, F.M.;
ALIYEV, Z.S.; BABANIX, V.Yu.; GULAMOV, Kh.A.; IBRACIMOV, M.R.; KAZIMOV, A.Sh.; KULIYEV, A.M.; SEMENOVA, I.I.; ROZEMBERG. M.D., prof.,
doktor tekhn. nauk, red.; ALITMAN, T.B., red. izd-va

[Problems of underground hydrodynamics and development of oil and
[gas fields] Voprosy podzemnci gidrodinamiki i razrabotki neftianykh
i gazovykh mestorozhdenii. Baku, Azerbaidzhanskoe gos. izd-vo neft.
i gazovykh mestorozhdenii. Baku, Azerbaidzhanskoe gos. izd-vo neft.
i nauchno-tekhn. lit-ry, 1960. 254 p.

1. Neftyanaya ekspeditsiya AN Azerbaydzhana (for Azizova, Aliyev,
Babanly, Gulamov, Ibragimov, Kazimov, Kuliyev, Semenova).

(Oil reservoir engineering)

PHASE I BOOK EXPLOITATION SOV /5710

Kuliyev, Ali Musa, Academician, Academy of Sciences Azerbaydzhan SSR.

Prisadki k smazochnym maslam (Lubricant Additives) Baku, Azerneftneshr, 1960. 321 p. Errata slip inserted. 1000 copies printed.

Ed.: I. A. Orudzheva, Candidate of Technical Sciences; Ed. of Publishing House: A. S. Shteyngel!.

PURPOSE: This book is intended for personnel of scientific research institutes and petroleum refineries and for students at schools of higher education.

COVERAGE: The book contains the results of research by personnel of the laboratoriya sinteza maslyanykh prisadok INKPP AN Azerbaydzhanskoy SSR (Laboratory for Synthesis of Lubricant Additives of the Institute for Petroleum and Chemical Production, Academy of Sciences Azerbaydzhan SSR). The studies

Card 1/#

Lubricant Additives

SOV / 5710

were undertaken with a view toward synthesizing fuel additives to improve the quality of lubricants produced from the highly sulfurous petroleum of the eastern regions of the Soviet Union. The synthesis of additives, their designations, structures, and industrial applications are discussed. The author thanks I. M. Orudzheva, G. A. Zeynalova, K. I. Sadykhov, A. A. Atal' yan, A. M. Levshin, D. A. Akhmed-zade, A. B. Abdinov, R. L. Margolin, U. Ya. Kafarov, and M A. Mamodov, all Senior Scientific Workers of the Institute. There are 204 references: 167 Soviet, 30 English, 1 Dutch, 1 French, and 5 German.

TABLE OF CONTENTS [Abridged]:

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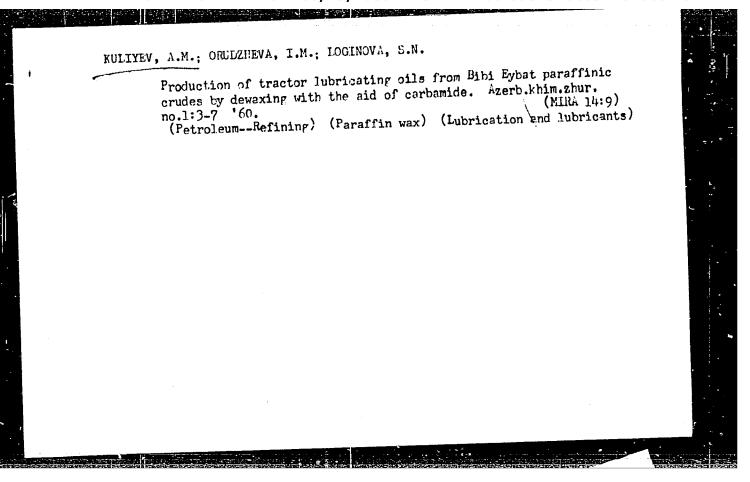
Introduction

Ch. I. Requirements of Lubricants and the Use of Additives Which Improve the Quality of Lubricants

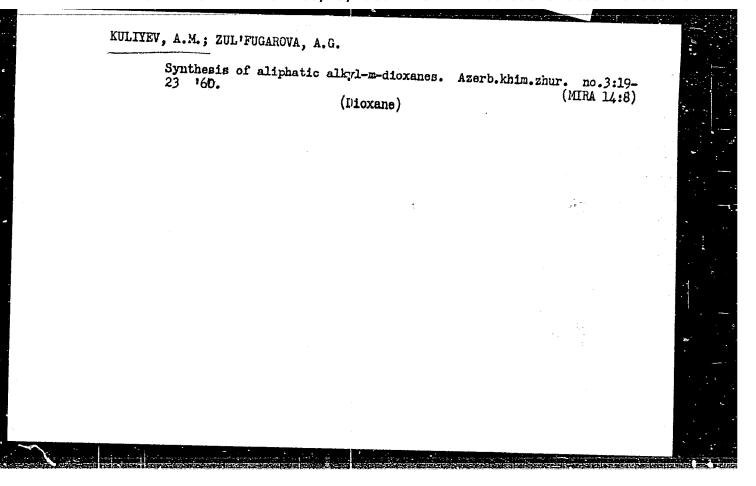
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APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000927510



5/081/62/000/003/072/090 B171/B102

AUTHOR:

Kuliyev, A. M.

TITLE:

Synthesis, study and application of additives to lubricating

oils. Results of investigations by the AZNII NP

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 3, 1962, 493, abstract 3M225 (Tr. 3-y Vses. konferentsii po treniyu i iznosu v

mashinakh v. 3, M., AN SSSR, 1960, 366-373)

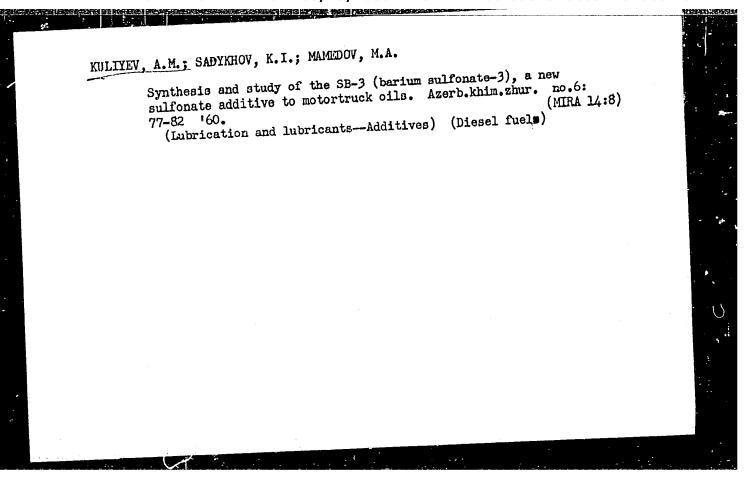
TEXT: Short reports are given of results of investigations of depressants, multifunctional and combined additives and other-ones. Are also given the directions of further investigations of viscous additives and additives with high ash content for motor oils. See also RZhKhim., 1961, 12M225. Abstracter's note: Complete translation.

Card 1/1

ARASOV, M.T., KULIYEV, A.M.

Displacement of gas by gasaffied petroleum. Gas.prom. 5 no.4:4-6
Ap 160. (MIRA 13:8)

(Condensate oil wells) (Gas wells)

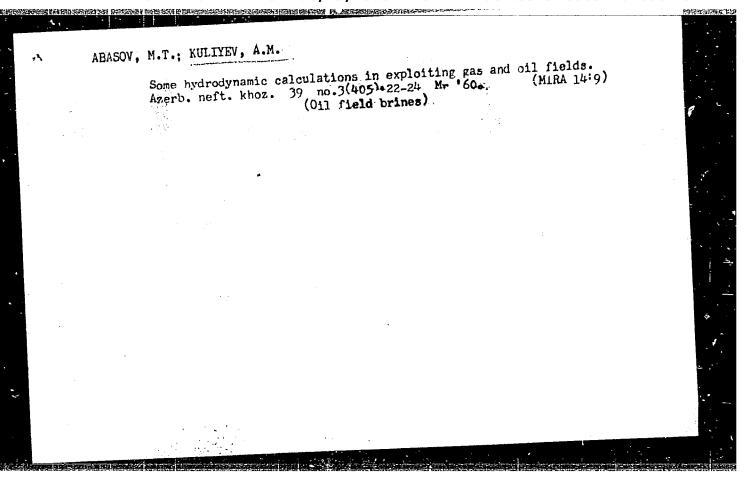


DALIN, M.A.; EULIYEV, A.M.; NURIYEVA, Z.D.

The Azerbaijan chemical industry during the last 40 years. Azerb.
neft. khoz. 39:26-27 Ap '60.

(Azerbaijan--Petroleum chemicals)

(Azerbaijan--Petroleum chemicals)



g/081/62/000/0c3/043/057 B156/B101

11.9700

Kuliyev, A. M., Sadykhov, K. I., Mamedov, M. A.

AUTHORS:

Synthesis, investigation and uses of sulfonate additives for

TITLE: lubricating oils

Referativnyy zhurnal. Khimiya, no. 8, 1962, 483-484, PERIODICAL:

. abstract 8M210 (Sb. "Prisadki k maslam i toplivam". M.,

Gostoptekhizdat, 1961, 48-58)

TEXT: Several salts of alkyl aromatic hydrocarbo. -ulfo acids were synthesized and the effectiveness of their action on oils studied in relation to molecular weight, structure and the nature of the metal included in their composition. As well as Ca- and Ba-salts, Co-, Pb-, Sr-, and Cusulfonates of sulfonated benzene were produced and investigated. It is proved that the greater the number of carbon atoms in the alkyl side chain of the sulfonates, the better their cleansing properties. It is shown that increase in their molecular weight improves the depressant properties of the synthesized sulfonates. The results of laboratory experiments made on oils with sulfonate additives and on oils with sulfonate and anti-oxidizing

Card 1/2

Synthesis, investigation and ...

S/081/62/000/008/043/057
B156/B101

additives are given. [Abstracter's note: Complete translation...]

36933 5/081/62/000/007/025/033 B168/B101

11.9700

Kuliyev, A. M., Zeynalova, G. A., Abdinova, A. B.

TITLE:

AUTHORS:

Synthesis and examination of anti-oxidant additives for

machine and other oils

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 7, 1962, 548, abstract

7M183 (Sb. "Prisadki k maslam i toplivam". M.,

Gostoptekhizdat, 1961, 102-109)

TEXT: Using the VTI method, the authors investigated the oxidation resistance of mineral oils (transformer oil MK-6 (MK-6) and MK-8 (MK-8)) containing the following synthetic additives: condensation products (1) of 1 mole urea, of 2 moles CH20 and of 1 mole p-alkylphenol (alkyls: n-C3H7,

tert-C₄H₉, tert-C₅H₁₁, sec-C₄H₉, sec-C₆H₁₃, sec-C₈H₁₇, tert-C₈H₁₇, C₉H₁₉, n-C₁₆H₃₃ of the olefins from the 100-180°C fraction of thermal cracking), condensation products (2) of furfuramide with different alkylphenols and condensation products of acetaldehyde ammonia with various alkylphenols. The first condensation product, obtained from the 100-180°C fraction of Card 1/2

Synthesis and examination of ...

S/081/62/000/007/025/033 B168/B101

thermal cracking (additive ODHUM-11 (aznii-11)) proved an effective antioxidant (at a concentration of 0.1%); at a test temperature of 120°C this product was equal in effectiveness to ionol and p-hydroxydiphenylamine and at 150 and 170°C was superior to ionol. The second condensation product, obtained from industrial acrylphenol (additive and -11¢ (aznii-11f)), was also found to be an effective anti-oxidant; it was more effective than ionol (at test temperatures of 120 and 150°C). [Abstracter's note: Complete translation.]

Card 2/2

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公司的人。 1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1985年,1

5568 \$/081/62/000/006/082/117 B167/B101

11.97.0 AUTHORS:

Kuliyev, A. M., Atal'yan, A. A.

TITLE:

Synthesis and investigation of additives which increase the

wetting properties of oils

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 6, 1962, 539, abstract

6M251 (Sb. "Prisadki k maslam i toplivam". M.,

Gostoptekhizdat, 1961, 121-124)

TEXT: The ultra-high pressure additive Aznii-9 was prepared by chlorinating the naphthalene filter cake of a pyrolysis product, purified from unsaturated hydrocarbons by H₂SO₄, or the 160-300°C fraction of light-oil pyrolysis, also purified by H₂SO₄. Chlorination was carried out up to a chlorine content of 15-20% in the product, which was then sulphurized with elementary S to the extent of 1-1.5%. Modified additives of the type of Aunii-9 were prepared by chlorinating naphtha from catalytic cracking (b. p. 160-270°C) and adding Aznii-7 or some other corrosion inhibitor. Results of tests (4-sphere friction machine) on various mineral oils Card 1/2

S/081/62/000/006/082/117 B167/B101

Synthesis and investigation of ...

containing 3% of Aznii-9 or its variants are reported. In operating trials of aviation oil KX-22 (MK-22) containing Aznii-9 in the decelerato: systems of trolleybuses, the wear on the gear teeth was reduced by one-half in the presence of the additive. [Abstracter's note: Complete translation]

Card 2/2

ABASOV, M.T.; KULIYEV, A.M.

Hydrodynamic calculations to assist in the exploitation of petroleum-gas deposits. Izv. AN Azerb. SSR. Ser. fiz.-mat.
i tekh. nauk no.1:149-159 '61.

(Petroleum engineering)

(Hydrodynamics)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000927510002-5

KSII. s/081/62/000/006/087/117

B167/B101

AUTHORS: Kuliyev, A. M., Levshina, A. M.

TITLE:

Study of the effect of additives containing different

functional groups on oil fractions and oils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 541, abstract

6M261 (Sb. "Prisadki k maslam i toplivam", M.,

Costoptekhizdat, 1961, 159-168)

TEXT: A study of the effect of various Aznii-7 and Aznii-6 additives, prepared from alkyl phenols with alkyl groups of different lengths (C7, C11, C13, and C16), on the corrosiveness (according to Pinkevich) and the stability to oxidation (according to Aznii) of mineral oils (AK-10 (AK-10) and Diesel oil from Buzovny naphtha). All the additives studied had a marked effect on corrosiveness, but gave a worse oxidation stability, the latter effect increasing with the length of the alkyl group. As regards solubility, additives containing C11-C12 alkyls are recommended. Also studied was the effect of (1%) additions to mineral oil of (C6H5)2S and (C6H5)2Se, of some of their hydroxy and/or alkyl Card 1/2

S/081/62/000/006/087/117 B167/B101

Study of the effect of additives ...

derivatives, and of (CH₃C₆H₄O)₃PS and (CH₃C₆H₄O)₅PSe, on the thermal stability (according to Papok) of the oil and on the above properties. The Se compounds were found to improve the oil more effectively than the Sanalogs: The only exception was the corrosiveness of the thio. and the Selenophosphate. The depressor properties of several mono-, di-, and selenophosphate. The depressor properties of several mono-, di-, and trialkyl benzenes, naphthalenes, tetralins, and other aromatic compounds with various alkyl substituents (C₇, C₁₆, and C₂₄) were measured on the with various alkyl substituents (C₇, C₁₆, and C₂₄) were measured on the Oil AK-15 (AK-15): The most effective was the dialkyl naphthalene with a C₂₄ alkyl group (Aznii depressor). Differences in the susceptibility of C₂₄ alkyl group (Aznii depressor). Differences in the susceptibility of various oils and fractions to the action of the Aznii depressant, anti-oxidant additives (phenyl-α-naphthylamine, p-hydroxydiphenylamine, oxidant additives (phenyl-α-naphthylamine, p-hydroxydiphenylamine, and of α-naphthol, 2,6-di-tert-butyl-4-methyl phenol, and Santolyub-394), and of the Aznii-7 additive were demonstrated on oils from different sources and the Aznii-7 additive were demonstrated on oils from different sources and the Aznii-7 additive were demonstrated translation. Abstracter's note: Complete translation.

Card 2/2

34892

S/081/62/000/003/073/090 B171/B102

11.9700

Kuliyev, A. M., Sadykhov, Z. A., Levshina, A. M.

TITLE:

AUTHORS:

Low-temperature copolymerization of isobutylene with styrene

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in the presence of aluminum chloride

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 3, 1962, 493, abstract

3M226 (Azerb. khim. zh. no. 3, 1961, 17-24)

TEXT: The low-temperature copolymerization of isobutylene (I) with styrene (II) in isooctane and in the presence of AlCl₃ has been investigated

in order to obtain viscosity improvers that would be stable under the working conditions to which the oils with additives are subjected in engines. The reaction was carried out in a glass reactor, using a mixer, at a temperature of -105°C. The ratios of (I) and (II) were varied from 95:5 to 85:15 for reaction durations from 2 min to 3 hours. 0.1 to 1.5% of the catalyst were used. Under the above conditions, copolymers with molecular weights of about 6200 to 13,000 were obtained. It has been shown that an addition of 3% of various samples of synthetic polymers increases the viscosity index of the MK-8 (MK-8) oil from 56 to 130-145, and its

S/081/62/000/003/073/090
B171/B102

Viscosity at 100°C from 2.78 to 4.2-5.2 centistokes. The AC -10 (AS-10)-type oils with a viscosity index of about 78-82 can be obtained by type oils with AC -6 (AS-6) oil with 1.5% of the copolymer. Abstracter's note: Complete translation.

S/081/62/000/007/023/033 B168/B101

11.9700

AUTHORS: Mamedova, R. K., Kuliyev, A. M., Sadykhov, K. I.

TITLE:

Synthesis of organic compounds containing phosphorus and sulfur and an investigation into their influence on the

properties of lubricating oils

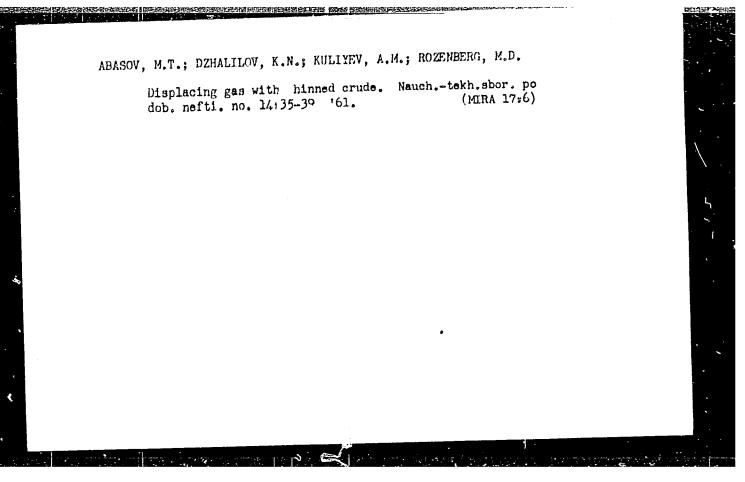
PERIODICAL:

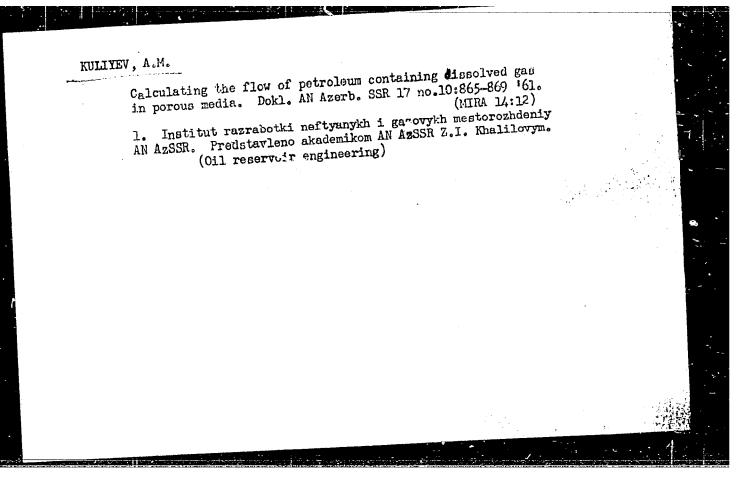
Referativnyy zhurnal. Khimiya, no. 7, 1962, 548, abstract

7M181 (Azerb. khim. zh., no. 4, 1961, 9-13)

TEXT: Zinc salts of compounds containing phosphorus and sulfur (2-8% P and 6-9% S) with an ash content of 16-28% were synthesized from unsaturated hydrogarbons contained in narrow fractions of the products of thermal cracking of paraffin. When the resultant additives were added in the proportion of 1% to a selectively refined diesel oil the corrosion caused by the oil decreased sharply whilst the stability of the oil improved. The synthesized salts can be used as components for the production of compound additives. [Abstracter's note: Complete translation.]

Card 1/1





ABASOV, M.T.; KULIYEV, A.M..

Some results of calculating the exploitation of gas and oil fields. Azerb. neft. khoz. 40 no.1:25-27 Ja 161. (MIRA :4:8)

(Oil fields—Production methods)

ARASOV, M.T.; BLANK, G.I.; KULIYEV, A.M., CHERNOMORDIKOV, M.Z.

Principles of the development plan for seven horizons of the Karadag gas-condensate oil field. Trudy Inst. razrab. neft. i gaz. mestorozh. AN Azerb. SSR 1:62-88 '62. (MIRA 16:6)

(Karadag region-Condensate oil wells)

42952

\$/081/62/000/022/058/088 B180/B186

11.9700

AUTHORS:

Kuliyev, A. N., Mamedov, F. N., Musayeva, N. F., Aliyeva, R.G.

TITLE:

Condensation of alkyl phenols with formaldehyde and diethyl

amine

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 22, 1962, 427, abstract

22M92 (Azerb. khim. zh., no. 1, 1962, 93-97 [summary in

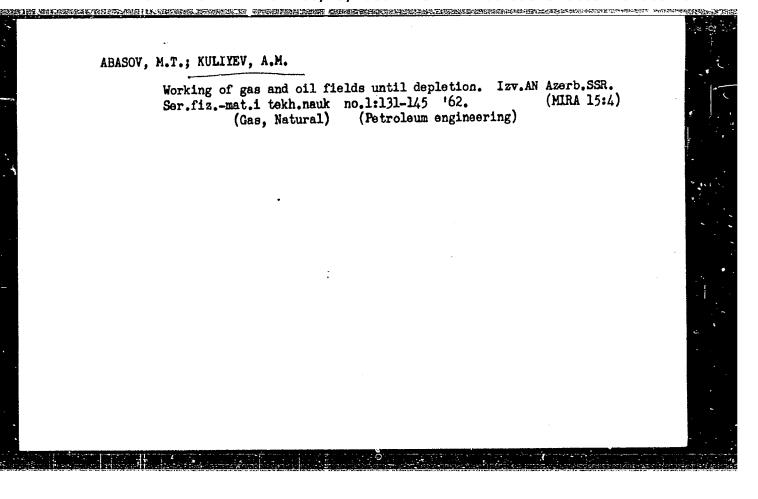
Azerb. 1)

TEXT: By condensing alkyl phenols, particularly n-tert-butyl-, n-tert-amyl-, n-tert-octyl phenols, with formaldehyde and disthanol amine using the Mannich reaction, compounds with high stabilizing properties were produced, so that they can be used as anti-oxidant, additives for lubricating oils. The experiments resulted in the production and characterization of the following compounds: 2-diethyl-amino methyl-4-tert-butyl-, 2-diethylamino methyl-4-tert-amyl- and 2-diethyl-amino methyl-4-tert-octyl phenols. These compounds were tested in a mixture with dissel oil $\mu-11$ (D-11) by solvent refining using the AzNII method, with the aim of studying their anti-oxidant properties. Additions of 0.05-0.5 % were made to the oil.

Card 1/2

Condensation of alkyl phenols with... S/081/62/000/022/058/088

The best effect was achieved with an additive concentration of 0.2 %.
10 references. [Abstracter's note: Complete translation.]



s/081/62/000/023/036/120 B166/B101

AUTHORS:

Kuliyev, A. M., Kuliyeva, Kh. N.

TITLE:

Condensation of thiourea and alkylphenols with formaldehyde

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 23, 1962, 268-269,

abstract 23Zh166 (Azerb. khim. zh., no. 2, 1962, 65-69

[summary in Azerb.])

By condensing together thiourea (I) and C_6H_4 OHR (IIa - g, where (a) $R = C_3H_7$, (b) $R = C_4H_9$, (c) $R = C_5H_{11}$, (d) $R = C_6H_{13}$, (e) $R = C_7H_{15}$ (f) $R = C_8 H_{17}$, (g) $R = C_{10} H_{21}$) with formaldehyde (III) substances with the general formula CS(NHCH2C6H3OHR)2 (IVa - g) were synthesized and their anti-corrosion and anti-oxidation properties studied. The aforesaid II were produced by alkylating phenol with the appropriate alcohols in the presence of concentrated H2SO4. The addition of an alkylphenol group to the dimethylolthicurea radical was not detected, but apparently (see Ellis,

Card i/2

Condensation of thiourea and ...

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S/081/62/000/023/036/120 B166/B:01

Khimiya sinteticheskikh smol (Chemistry of Synthetic Resins), v. 1, no. 2, chapter 26, 1938) took place in the para or ortho position. A mixture of I, II and a great excess of a 37% aqueous solution of III was heated to $60-65^{\circ}$ C for 30-45 min stirring all the time, concentrated HCl was added as a catalyst (temperature rose to 96-98°C), the mixture was then agi ated for 4-5 hrs at 96-98°C, C_6H_6 was extracted, then IV were separated from the

benzene layer (the IV and its molecular weight are given): a, -; b, 402.3; c, 429.6; d, 455.5; e, -; f, 507.8; g, 573.8. IVa - f are crystalline substances, IVg is a viscous fluid. [Abstracter's note: Complete translation.]

Card 2/2

AUTHORS:

Kuliyev, A. M., Negreyev, V. F., Mamedov, I. A., Atal'yan, A. A., Gasanova, S. G., Mamedov, F. N., Abdullayeva, G. M.

TITLE:

Condensation products of alkylphenols and their derivatives with monochloro-acetic acid as inhibitors of steel corrosion

PERIODICAL:

Referativnyy zhurnal, Metallurgiya, no. 12, 1962, 115 - 116,

abstract 121717 ("Azerb. khim. zh.", 1962, no. 3, 59 - 66; Azerb.

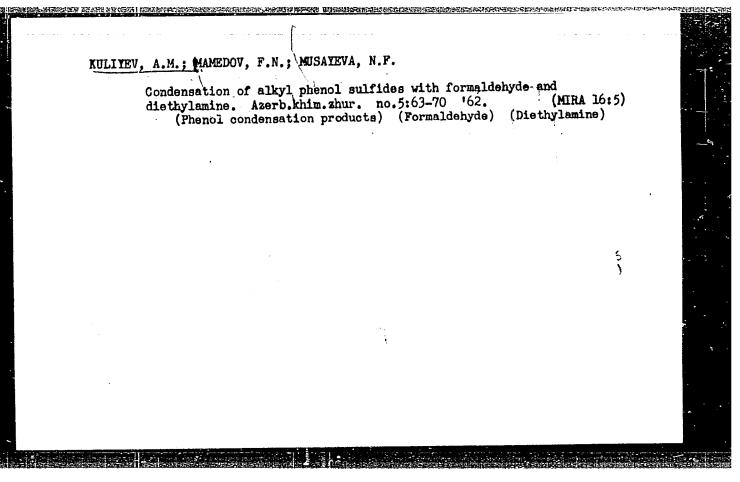
TEXT: The authors investigated the effect of the admixture of alkylphenol condensation products with monochloro-acetic acid upon the corrosion rate of steel in a system of two immiscible liquids; the system is composed of aqueous solutions of salts and hydrocarbons. The investigation shows that these compounds are inhibitors of steel corrosion, which retard the corrosion rate by approximately 90 - 95% at a concentration of the admixtures to the carbons as high as 50 mg/l. These compounds are recommended for natural tests in oil wells, where intensive corrosion of the underground equipment is observed, and for other analogous cases. There are 6 references.

The authors' summary [Abstracter's note: Complete translation] The authors' summary Card 1/1.

KULIYEV, A.M.

Developing oil and gas fields by maintaining reservoir pressure. Izv. AN Azerb. SSR Ser. geol.-geog. nauk i nefti no.5:19-25 162. (MIRA 16:6)

(Oil field flooding)



5/081/63/000/003/021/036

AUTHORS:

Kuliyev, A. M., Orudzheva, I. M., Mamedova, P. S.

TITLE:

Study of the effect of APM-10 (AzNII-10) additive on the stability and frictional characteristics of oils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 514, abstract 3P241 (Azerb. neft. kh-vo, no. 7, 1962, 38-39)

The study dealt with MM-8 (MK-8), Mc -20 (MS-20) and MM-22 (MK-22) aviation oils, transformator, diesel, and also synthetic oils. The stability of oils was determined by the VTI and AzNII method. Testing of oils containing additives in the four-ball machine showed that on addition of 0.5% AzNII-10 additive (the condensation product of sulfide alkyl phenol with the chloroanhydride of alkyl phenol phosphorous acid) the frictional characteristics of the oils improve markedly. The additive raises the stability of transformator, diesel and synthetic oils; it has a positive effect on the stability of transformator oil under oxidation conditions at a temperature of λ 120°C. When the additive AzNII-10 is added to an oil containing the additives AzNII-7 and (b-3), the

Study of the effect of ...

S/081/63/000/003/021/036 B144/B186

AzNII-10 have good anticorrosive and antiscaling properties. The authors conclude that the additive AzNII-10 is capable of increasing the stability and the anticorrosive, antiscaling and frictional engracteristics of oils. Abstracter's note: Complete translation.

Card 2/2

KULIYEV, A.M., akademik

Synthesis of organic compounds as lubricant additives. Vest.AN SSSR 32 ne.7:51-53 Jl 162. (MIRA 15:7)

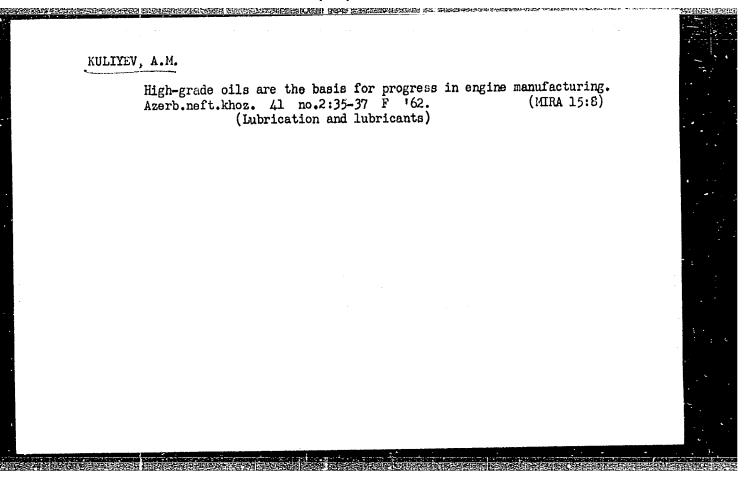
1. Akademiya nauk Azerbaydzhanskoy SSR.

(Imbrication and lubricants)

ABASOV, M.T.; KULIYEV, A.M.; ASLANOV, R.T.

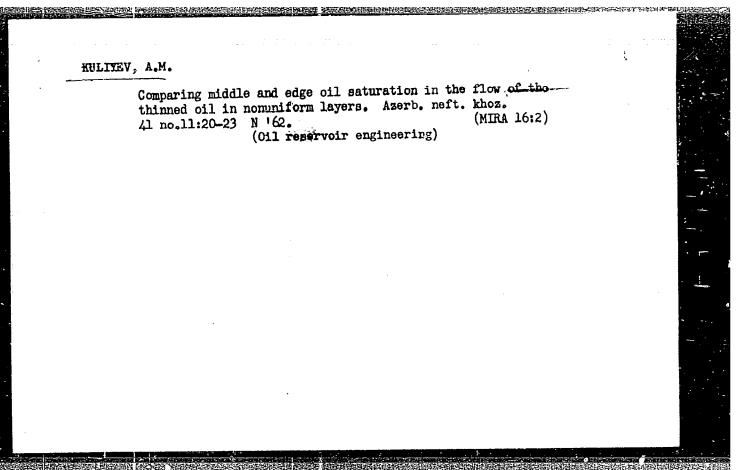
Comparing average saturation with edge saturation in saturated oil flow. Azerb.neft.khoz. 41 no.2:23-25 f '62. (MTRA 15:8)

(Oil reservoir engineering)



KULIYEV, A.M.; SADYKHOV, Z.A.; LEVSHINA, A.M.

Polymerization of isobutylene and copolymerization of isobutylene and styrene in the presence of a metallo-organic catalyst. Azerb. neft.khoz. 41 no.3:33-36 Mr 162. (MIRA 15:8) (Propene) (Polymerization)



CHERNOZHUKOV, N.I., doktor tekhn. nauk, prof., nauchnyy red.;

ZHERDEVA, L.G., red.; IVANOVA, L.V., red.; ISAGULYANTS, V.I.,
red.; ISMAILOV, R.G., red.; KREYN, S.E., red.; KULIYEV, A.M.,
red.; HAMEDOV, M.A., red.; PAPOK, K.K., red.; SPEKTOR, Sh.Sh.,
red.; FEDOTOVA. A.F., red.; SHKHIYAN, S.Kh., red.; LEVINA,
Ye.S., ved. red.; POLOSINA, A.S., tekhn. red.

[Improvement of the quality and the production of lubricating
oils] Uluchehenie kachestva i sovershenstvovanie proizvodstva
smazochnykh masel; trudy. Moskva, Gostoptekhizdat, 1963. 255 p.
(MIRA 16:6)

1. Vsesoyuznoye soveshchaniye po uluchsheniyu kachestva bakinskikh smazochnykh masel i usovershenstvovaniyu tekhnologii ikh
proizvodstva, Eaku, 1961.

(Lubrication and lubricants)

ACCESSION NR: AT4001187

ABSTRACT: The results of synthesis and testing of new and perspective oil additives developed in the INKhP are summarized. A series of alkylaromatic suflonates (C₁ - C₁₆; benzene, naphthalene, tetralin, phenol and chlorophenyl) were synthesized and characterized; the relationship between their detersive properties and their solubility, molecular weight, metal content, side chain length, aromatic nucleus and presence of functional groups was studied. The stability, detergent and corrosive properties of some of these compounds-SB-J, PMS-19, NG-102 were laboratory tested; SB-J gave better results in wear and deposit formation after long term testing than AZNII-8 or TsIATIM-JJ9. A study of Ba, Ca, and Zn salts of alkylphenol-formaldehyde condensation products indicated the Ba salt, BFK-1, to have the best detergent, anticorrosion and antideposit properties, its effectiveness approaching that of monofunctional phosphorus-containing additives. For antioxidants, a new series of compounds was synthesized based on alkylated ureas. AZNII-11, a condensate of alkylphenol with urea and formaldehyde is especially interesting. Condensates of alkylphenols (p-tert.-butyl, -amyl, -octyl) with aldehydes (furfuralde-

Cord 2/4 3

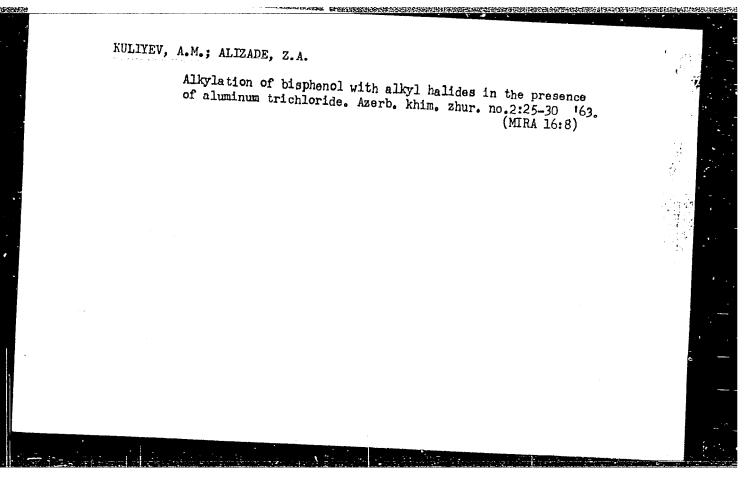
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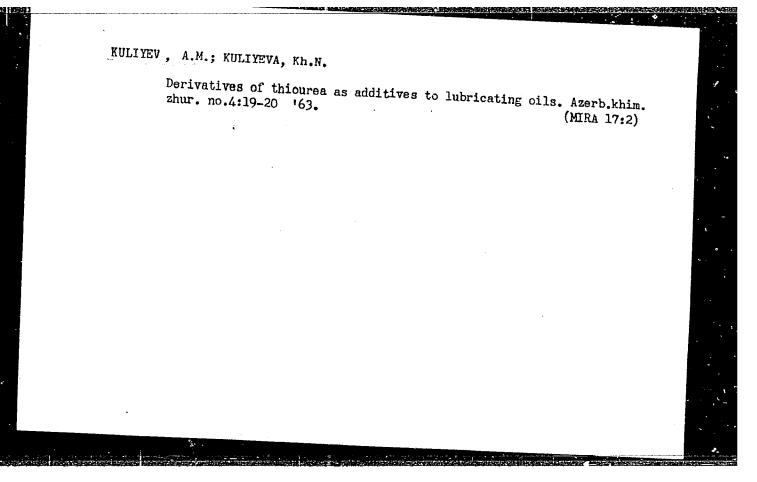
ACCESSION NR: AT40U1187

hyde, acetaldehyde) and ammonia yielded an especially promising AZNII-lif (substituted alkylphenol-furfuramide). About 1% of this gaves smaller amounts of deposite, lower acid number of the oil and better stabilization than ionol. Urotropine-formamide condensates were investigated. Optimum synthesis conditions for additive No. 17, p-tert. octylphenol-urotropine-formaldehyde condensate were studied. O.1% of No. 17 in MK-8 oil gave as much antioxidant protection as ionol, and was more effective than p-hydroxydiphenylamine, as tested by the VTI method at 140° and 200°C. Polyfunctional additives were prepared from mixtures of alkyl phenolates, phenylsulfonates and phenolate-P.S. reaction products. Mixtures of SB-3 and VNII NP-354, VNII NP-353, Zn salt of S- and P-containing compounds, or BFK-1, tested on transport engines YaAz-204 and KDM-46, showed the SB-3+BFK-1 combination most effective. SB-3+AZNII-7 (1:1) offered better protection in a S-containing AS-10 oil than either component alone. Orig. art. has: 16 Tables and 5 Equations.

ASSOCIATION: None

Cord 3/4 -





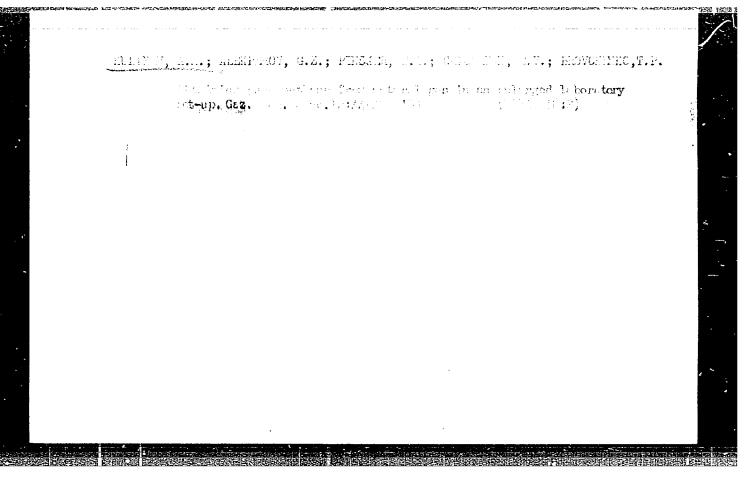
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KULIYEV, A.M.; ZEYNALOV, K.A.

Effect of the degree of refining of a viscous distillate of oil component from Peschanyy island crudes on the heat conductivity coefficient. Azerb.khim.zhur. no.6:3-9 '63. (MIRA 17:3)

NEGREYEV, V.F.; KULIYEV, A.M.; MAMEDOV, 1.A.; SADYKHOV, K.I.; ZEYNALOV, S.D.; ABDULLAYEVA, G.M.; ZEYNALOVA, K.A.

Investigating some surface-active by-products of the industry of oil additives as corrosion inhibitors. Azerb, khim, zhur. no.6; 57-64 '63. (MIRA 17:3)



1. 12401-63

EMP(j)/EPF(c)/EAT(m)/EDS

AFFTC/ASD/APGC Pc-4/Pr-4

B /H/W/M

ACCESSION NR: AP3001668

5/0065/63/000/006/0024/0028

AUTHOR: Kuliyev, A. M.; Zeynalova, G. A.; Abdinova, A. B.; Kafarova, U. Ya.; 75 Sileymanova, F. G.; Mamedov, M. A.

TITLE: Preparation of multifunctional additive based on condensation products of alkylphenol with formaldehyde

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1963, 24-28

TOPIC TAGS: Fuel additives, physicochemical properties, formaldehyde, alkylphenol

ABSTRACT: The investigation of a multifunctional additive by the condensation reaction of formaldehyde with alkylphenol and its comparison to other existing additives has been completed. In the process of investigation it was established that the use of highly effective multifunctional additives in fuels his more economical and since all the functional groups are concentrated into one molecule, the elamination of these additives is rapid as a result of its chemical inneraction with the metals at contact or adsorption to the metal surface. The composition of the synthesized barium salt of the condensation alkylphenol and formaliehyde products (BFK) With other combination additives showed that the BFK additive is more superior to other additives. It prevents corrosion of the

Card 1/2

L 12401-63

ACCESSION NR: AP3001668

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diesel fuels containing as much as 1.21 of sulfur in their composition and to a large extent improves its wetting ability. An industrial production of HFK based on the original data has been proposed. Orig. art. has: 5 tables.

ASSOCIATION: INKhP AN AZSSR.

SUBMITTED: 00

DATE ACQ: 08Jul63

ENCL: 00

SUB CODE: none

NO REF SOV: 000

OTHER: 000

Card 2/2

BUGIRZADE, T.M.; KULIYEV, A.M.; KULIYEV, R.Sh.; SAMEDOVA, F.I.

Production of insulating oils of high stability. Azerb. neft.
(MIRA 16:10)

(Insulating oils)